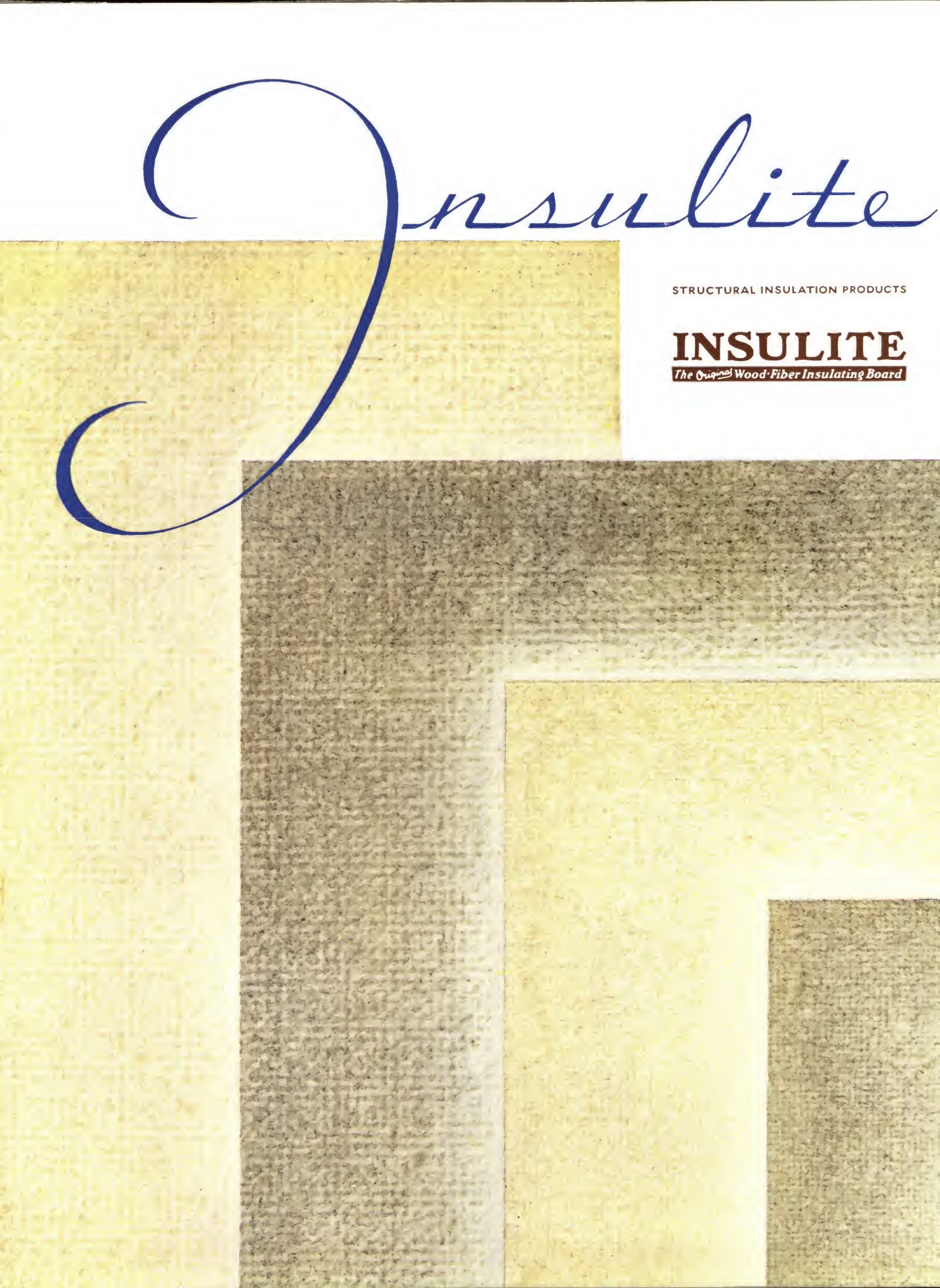




nsulite

STRUCTURAL INSULATION PRODUCTS

INSULITE

The Original Wood-Fiber Insulating Board

INSULITE

STRUCTURAL INSULATION BOARD

Made by
THE INSULITE COMPANY
Minneapolis, Minnesota

Mills: International Falls, Minnesota and Karhula, Finland

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THE COMPANY—EXPERIENCE AND FACILITIES

EXPERIENCE—Insulite, the original structural wood fiber insulating board, has been made and marketed for more than 20 years. Experience gained through constant observation of actual installations of Insulite Products during this period, coupled with exhaustive laboratory research work, assures dependable and comprehensive information on the practical applications of Insulite in its various forms. This background of many years of practical experience offers the ultimate consumer of Insulite Products an unsurpassed service and protection.

MANUFACTURING FACILITIES—A thoroughly modern plant capable of producing an output of 300,000,000 sq. ft. per year assures an ample supply of material at all times. Special machines designed by THE INSULITE CO. Engineering Department make possible the fabrication of special insulation items required in the industrial field. Such machines provide finished insula-

tion units to fit practically any need at exceptionally low cost.

DISTRIBUTION—Insulite Products are distributed nationally through retail lumber dealers who maintain large stocks for immediate delivery. To facilitate shipping and handling without injury, these materials are neatly and securely packaged in strong, easily handled bundles. This service assures delivery to the job in the same condition as when the materials leave the mills.

Insulite Products are carried by dealers throughout the world.

SERVICE—THE INSULITE CO. maintains at its various offices a Service Department personneled with experienced Insulation Engineers. Competent representatives and service men are available in all principal cities. The Company tenders its full cooperation and service facilities to architects in the solution of insulation problems.

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ALSO MANUFACTURERS OF ACOUSTICAL MATERIAL



INSULITE MANUFACTURING PROCESS

Insulite Structural Insulation is made from the tough, durable fibers of northern woods. The wood is reduced to fiber by the cold grinding process which assures not alone the retention of the natural protective gums inherent in the wood and the full strength of the fiber but the natural attractive light color of fresh wood as well.

The fibers are first subjected to a chemical treatment which renders the finished product moisture-resistant. The formation of the fiber into structural sheets is accomplished by a felting process developed to give maximum strength and heat resistance through the proper interlacing of the fiber which seals in millions of minute air cells.

PHYSICAL CHARACTERISTICS

TESTS—All test data, the results of which only are here given, are substantiated by complete reports verified by competent laboratory sources. Copies of complete test data will be furnished to those interested on request.

LOW THERMAL CONDUCTIVITY—The conductivity of standard Insulite structural insulation products is .33 B.t.u.'s per sq. ft., per inch thick, per hour, per degree F. (Bureau of Standard's test of 16.9 lb. density Insulite.)

TENSILE STRENGTH—The standard structural products have tensile strength averaging 352 lbs. per sq. in. In the tensile test, specimens 2 in. wide x 12 in. long were cut from the ½ in. thick board. Specimens were tested in a standard tension testing machine determining the breaking loads.

MODULUS OF RUPTURE—The standard structural products have a modulus of rupture averaging 475 lbs. per sq. in. Specimens 4 in. wide cut from ½ in. thick board were placed on supports 10 in. O.C. A concentrated load, uniformly increased, was applied at the midpoint and increased until failure. From this breaking load, the bending moment was determined as well as the deflection at the center of the span.

RESISTANCE TO MOISTURE—A specimen 12 in. square x ½ in. thick when immersed for a period of two hours to a depth of 1 in. to its upper surface in running water at a temperature of 70° F. shows an absorption of 11.18 per cent.

EXPANSION—Under test conditions similar to those above described for absorption the expansion due to moisture absorption is 0.112 per cent increase in length expressed as a percentage of the total length under air dry conditions.

STRUCTURAL STRENGTH—Tests on Insulite Building Board used as sheathing on frame construction prove that when

properly applied the ½ in. thick board is nearly three times as strong (so far as bracing against distortion) as standard No. 2 8-in. fir shiplap sheathing applied horizontally in the customary manner.

PLASTER BOND—Authentic tests show that to rupture the bond between gypsum plaster and Insulite Lok-Joint Lath requires a pull of 1152 lbs. per sq. ft.

FIRE RESISTANCE—Insulite is slow burning. Since there are no open joints in the standard methods of application to permit inflow of air, Insulite forms a barrier against fire travel.

NON-COMPRESSIBLE—Insulite will not compress under normal standard methods of use. When laid over roof decks under standard built-up roofing, it is sufficiently firm to prevent injurious dents or cutting of the roofing under normal use.

EASY TO INSTALL—Insulite is cut and nailed like lumber. Its light weight and convenient units of size for various purposes insure easy handling at low labor costs.

UNIFORMITY—Adequate laboratory control and mill inspection assure absolute uniformity in density, structural strength, and appearance. Packing methods eliminate damage under normal shipping conditions.

COLOR AND SURFACE TEXTURE—Due to the method of manufacture, Insulite has a uniformly pleasing light color—the color of clean new wood. It is also available in "graylite" color, a neutral shade of grayish brown. As marketed, it is furnished with two distinct attractive surface textures as follows, and illustrated on front cover:

The "Burlap Surface" simulates a loosely woven fabric.
The "Fine Surface" is smooth and simulates a closely woven fabric with a distinct surface texture.



Insulite Mills, International Falls, Minnesota

INSULITE THERMAL INSULATION PRODUCTS

INSULITE BUILDING BOARD

Description—Square edge boards of standard composition and density. One-half and three-quarter inch thicknesses are homogeneous; one-inch thickness is laminated (two half-inch thicknesses glued.)

Uses—Insulating structural sheathing and roof boarding, exterior and interior wall and ceiling finish. Also sound deadening.

Sizes (Area)—4 feet wide x 5, 6, 7, 8, 9, 10 and 12 feet long.

Thicknesses and Surface Finishes— $\frac{1}{2}$, $\frac{3}{4}$, and 1 inch thick in Burlap and Fine surfaces

INSULITE GRAYLITE BUILDING BOARD

Description—Square edge boards of standard composition and density of a grayish brown color.

Uses—Insulating structural sheathing and roof boarding, exterior and interior wall finish. Also sound deadening.

Sizes (Area)—4 feet wide x 5, 6, 7, 8, 9, 10 and 12 feet long.

Thickness and Surface Finishes— $\frac{1}{2}$ inch thick in Burlap and Fine surfaces.

INSULITE STRUCTURAL SHEATHING

Description—A board of standard composition with increased density, furnished in the thickness usually employed for sheathing purposes— $\frac{25}{32}$ in. The color is a distinctive grayish brown, and the slightly increased density gives a marked increase in structural strength.

Uses—Highly efficient insulating structural sheathing and insulating roof boarding.

Sizes—4 ft. 0 in. widths. Lengths to 12 ft. 0 in.

Thickness and Surface Finishes— $\frac{25}{32}$ in. homogeneous composition. Burlap and fine screen surface textures.

INSULITE LOK-JOINT LATH

Description—Fabricated from boards of standard composition and density. Long edges shiplapped to prevent air infiltration and maintain continuity of insulation. One-half and three-quarter inch thicknesses are homogeneous. One-inch thickness is laminated (two half-inch thicknesses stapled). Galvanized wire "loks," spaced midway between framing supports 16 in. O.C. on bottom edge of each unit (an exclusive Insulite feature) which reinforce the unsupported horizontal joint and minimize yielding under trowel pressure during the plastering operation. These "loks" also serve as plaster grounds assuring not less than $\frac{1}{4}$ in. thickness of plaster on first coat.

Use—Interior insulating plaster base.

Size (Area)—18 x 48 inch.

Thicknesses and Surface Finish— $\frac{1}{2}$, $\frac{3}{4}$, and 1 inch thick, Burlap finish—a surface to which plaster will adhere.

INSULITE TILE (STANDARD AND GRAYLITE)

Note: See joint details on page 4.

Description—Fabricated from boards of standard composition and density. On finished surfaces all four edges are neatly beveled. Tile can be furnished in two distinctive colors—Standard, light color; Graylite, grayish brown. Available in three types of joints—V-Lap, V-W, and B-B.

Uses—Insulating interior wall and ceiling finish secured over plaster or similar finished surfaces with cement or/and brads or to structural framing or furring, except where one or the other is specially specified. In natural or stained finish is an excellent acoustical absorbent.

Thicknesses and Surface Finishes— $\frac{1}{2}$ in., $\frac{3}{4}$ in. and 1 in. thick in Burlap and Fine Surfaces.

V-Lap—V-shaped joint similar to V-W except that it is not reversible. Sizes in this type are (small) 6 x 6 in.; 6 x 12 in.;

8 x 8 in.; 8 x 16 in.; 12 x 12 in.; 12 x 24 in.; 16 x 16 in.; 24 x 24 in.—(large) 16 x 32 in.; 18 x 32 in.; 24 x 32 in.; 16 x 48 in.; 18 x 48 in.; 24 x 48 in.

V-W—V-shaped interlocking joint symmetrical about the center line of the tile, making it reversible so that either surface may be exposed. Sizes in this type are 6 x 6 in.; 6 x 12 in.; 8 x 8 in.; 8 x 16 in.; 12 x 12 in.; 12 x 24 in.; 16 x 16 in.; 24 x 24 in.

B-B—Beveled and Butt joint all around each unit. Sizes in this type are 6 x 6 in.; 6 x 12 in.; 8 x 8 in.; 8 x 16 in.; 12 x 12 in.; 12 x 24 in.; 16 x 16 in.; 24 x 24 in.

INSULITE PLANK (STANDARD AND GRAYLITE)

Note: See joint details, page 4.

Description—Fabricated from both the Standard and Graylite board into several widths with V-W or B-B joints on the long edges. May be obtained either with or without a bead which runs parallel to the long edges in addition to the V-groove which is provided at all joints.

Use—Insulating interior wall finish used either vertically or horizontally to provide a random plank effect. Can be left natural, stained, or painted.

Sizes—6, 8, 10, 12, and 16 in. widths.
6, 8, 9, 10, and 12 ft. lengths.

Thicknesses and Fabrications— $\frac{1}{2}$, $\frac{3}{4}$, and 1 in. thick with either B-B or V-W joint, with or without bead and choice of Standard light color or Graylite. Ends cut square.

INSULITE STANDARD ROOF INSULATION

Description—Fabricated from boards of standard composition and density. Various thicknesses are laminated by stitching two standard thicknesses together. The 1, $1\frac{1}{2}$, and 2 inch thicknesses can be provided with the original Insulite "Offset" feature. This feature consists of a 1 inch shiplap on all four edges which provides heat sealing at joints (continuity of insulation).

Use—Insulation over various types of roof decks under built-up finished roofing.

Size (Area)—24 x 48 in.

Thicknesses and Fabrications—Homogeneous with square edges— $\frac{1}{2}$ and 1 inch thick. Stitched with 1 inch offset edges—1, $1\frac{1}{2}$, and 2 inch thick. Stitched with square edges— $1\frac{1}{2}$ and 2 inch thick.

INSULITE ASPHALTED ROOF INSULATION

Description—Fabricated from sheets of standard composition and density in which is included asphalt uniformly distributed through the board. Meets established thermal insulation efficiencies for roof insulation products.

Use—Insulation over various types of roof decks under built-up finished roofing.

Size (Area)—24 x 48 in.

Thicknesses and Fabrications—Homogeneous with square edges, $\frac{1}{2}$ in. thick. Stitched with 1 in. offset edges, 1 in. thick. Stitched with square edges, 1, $1\frac{1}{2}$, and 2 in. thick

INSULITE COLD STORAGE INSULATION

Description—Fabricated from special low density board of standard Insulite composition. Various thicknesses are accomplished by lamination (gluing) of standard thicknesses. Blocks are square edged. Insulite Low Density Insulation has an average conductivity of .30 B.t.u. per sq. ft., per inch thick, per hour, per degree F. with a density which averages approximately $11\frac{1}{2}$ lbs

Uses—For insulating floors, walls, and ceilings of ice manufacturing plants, cold storage plants, etc.

Sizes (Area)—6, 9, 12, 18, 24 in. wide x 36 in. long; 12, 18, 24 in. wide x 18 in. long; 24 in. x 24 in., 12, 24 in. wide x 48 in. long.

Thicknesses—1, $1\frac{1}{2}$, 2, 3, and 4 inches thick.



INSULITE SEALDSLAB (COLD STORAGE INSULATION)

Description—Fabricated from the same low density material and in the same manner as described for standard Cold Storage Insulation. Each unit of Sealdslab is "sealed dry" with a continuous impregnation of especially prepared asphalt to a uniform depth of $\frac{3}{32}$ in. on all faces which, in addition to the final asphalt coating applied on the job, provides a superior seal against moisture.

Uses—Especially adapted to use in freezers; meat, beer, and creamery coolers; milk cooling tanks; fruit and vegetable storage rooms; general cold storage rooms; and in the air conditioning field.

Sizes (Area)—6, 9, 12, 18, 24 in. wide x 36 in. long; 12, 18, 24 in. wide x 18 in. long; 24 in. x 24 in.; 12, 24 in. wide x 48 in. long.

Thicknesses—1, $1\frac{1}{2}$, 2, 3, and 4 inches thick.

INSULITE HARDBOARD PRODUCTS

Description—Specially fabricated boards of different densities, hardness, and thicknesses, sizes up to 4 x 12 ft.

Dualboard—A medium density board, $\frac{1}{4}$ in. thick, golden oak brown.

DeLuxe Dualboard—A medium heavy density board, $\frac{1}{4}$ in. thick, golden oak brown.

HardBoard—Heavy density board, $\frac{1}{10}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, in. thick, golden oak brown.

Tempered HardBoard—Extra heavy density board, $\frac{1}{10}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$ in. thick, burl walnut brown.

Black Tempered HardBoard—Extra heavy density board, $\frac{1}{10}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$ in. thick, slate black.

Panel Tile—Extra heavy density board, $\frac{1}{8}$ and $\frac{3}{16}$ in. thick, burl walnut brown scored in 4 in. squares.

INSULITE FIBEROCK

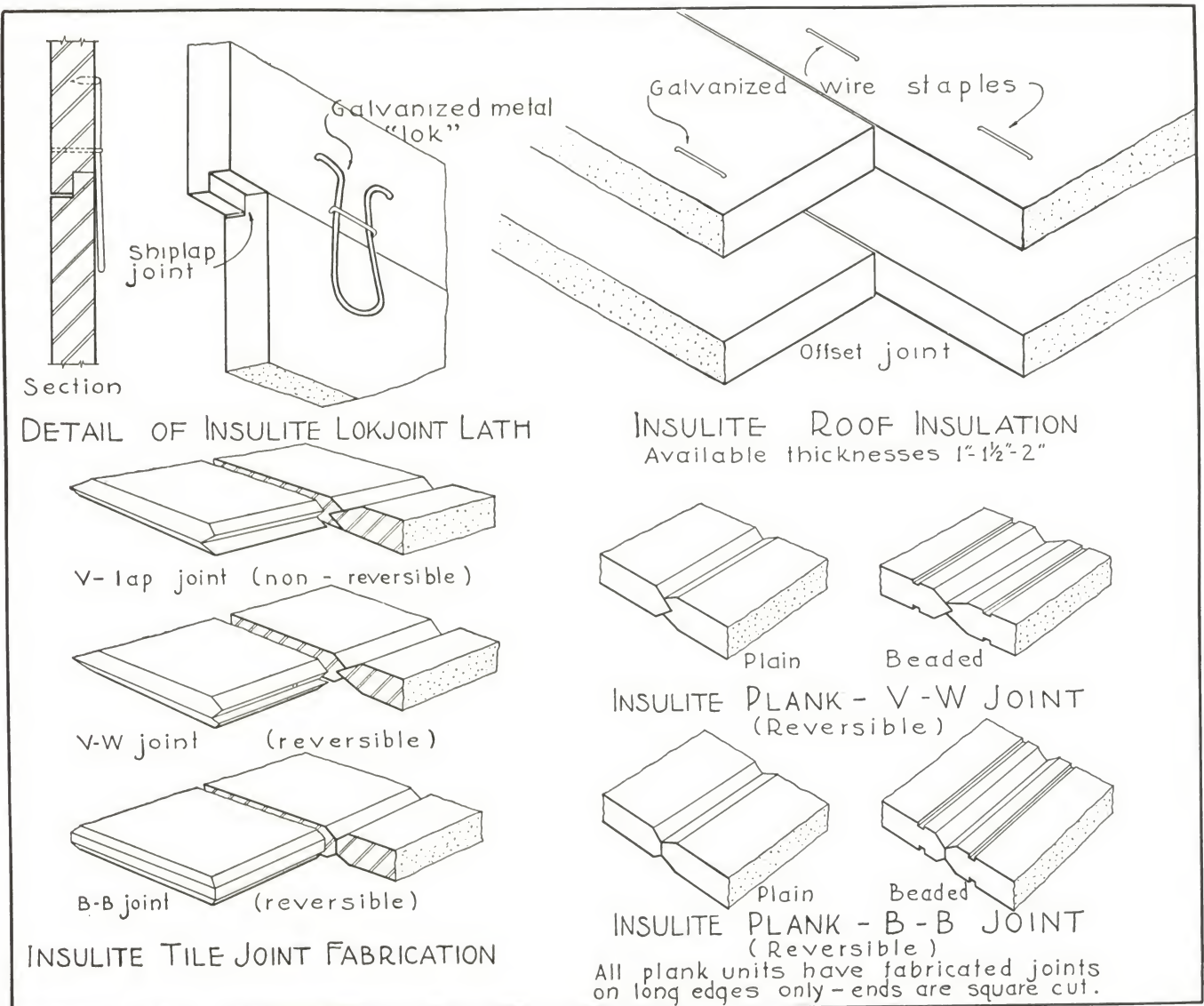
A quality mineral wool blown from natural rock, treated during manufacture to increase resistance to moisture absorption. Clean, inorganic, incombustible, permanent, insect and vermin proof, unexcelled as efficient insulation.

Available in three forms:

Fiberock loose wool (bags) for hand application.

Fiberock granulated (bags) for hand pouring.

Fiberock bats (cartons) for hand placement.



(2A) FURRING

Fur all exterior masonry walls to receive Insulite Lath with (1 x 2 in.) (specify) furring strips set 12 or 16 in. O.C. accurately shimmed to a true, level plane. Secure substantially to masonry.

(3A) GROUNDS

Furnish and erect, substantially secured to framing members through the Insulite Lath, full ½ in. wood grounds for all interior wood trim.

Where (¾ in.) (and) (1 in.) thick Insulite Lath units are used, add the necessary trim grounds on all door and window frames to compensate for this thickness plus a full ½ inch of plaster.

(4A) PLASTERING

(4A1) Caution—Do not wet Insulite Lath before applying plaster.

(4A2) Inspection—Inspect nailing and notify lather of any portions of Insulite Lath not adequately secured in accordance with paragraph No. 3 above. See that all corners and angles are reinforced with metal corner beads accurately set to line with grounds and that all re-entrant angles are reinforced with expanded metal angle strips.

(4A3) Plaster—Use standard gypsum cement plaster or gypsum wood fiber plaster for scratch and brown coats mixed accurately in accordance with the manufacturer's specifications. Both scratch and ground coat shall be mixed to a wet consistency to allow for application with light trowel pressure and to facilitate darbying. Use any standard plaster finish over the brown coat, such as gypsum, lime, or lime gauged with gypsum mixed in accordance with the manufacturer's specifications.

Note: Lime plaster or lime gauged with gypsum should not be used for scratch and brown coats.

(4A4) Application—Apply in three (3) coats to full ½ in. grounds in accordance with the plaster manufacturer's specification. Surfaces shall be rodged to a true plane. All corners and angles shall be plumb and true. Wherever necessary, and particularly on ceilings, provide plaster screeds to insure an even, uniform full ½ in. plaster thickness.

Note: The maintenance of a uniform full ½ in. thickness of plaster cannot be too strongly stressed. Most plaster defects where a fibrous or board plaster base is used may be attributed to a weak, thin plaster coat, inadequate to withstand the normal building strains of shrinkage, settlement, and vibration.

In applying the scratch coat of plaster, this shall be carefully pressed into all joints.

If the brown coat becomes stiff and sets during darbying, wet down the surface to allow for darbying without undue pressure against the plaster surface.

Darby strokes shall be in the direction of framing members with the darby spanning two studs or joists.

(4A5) Ventilation—Provide adequate ventilation for the proper drying of the plaster.

Note: Due to the moistureproof characteristics of Insulite Lath, all plaster moisture must be carried off by the air in contact with the exposed plaster surface.

(4A6) Heat—Provide adequate heat to prevent injury by frost.

(5A) ELECTRIC OUTLETS

Where ¾ in. or 1 in. thick Insulite Lath units are used, set electric outlet boxes to accommodate a full 1¼ in. or 1½ in. thickness respectively from face of stud or joist to face of plaster.

Section . . . 3
MASTER SPECIFICATIONS**INSULITE INTERIOR FINISH INSULATION**

Note: For Physical Characteristics, see page 2. For descriptions, dimensions, surface finishes, etc., see page 3.

INSULITE BUILDING BOARD**(1) WORK INCLUDED**

Note: Here list and locate definitely the wall and ceiling areas to be covered. If more than one thickness is used or more than one type of surface exposed, list separately and the respective locations or areas covered.

Note: For the best results, interior detailed elevations of walls and plans of ceilings showing joint or panel design should be included in the drawings and referred to here.

(2) FRAMING

(2a) Studs and joists shall be framed to conform accurately to the design of board spacing or paneling, set 12 or 16 in. O.C. Use additional studs, joists, and headers where necessary. Provide headers back of all wainscot caps, chair rails, baseboards, and other heavy wood trim.

(2b) It is imperative for satisfactory results that framing to receive Insulite Building Board used as interior finish shall be selected for straightness and uniform thickness to form a true, even nailing base. Bent studs shall be straightened by notching and wedging from the concave side. Framing members that are bent sideways so that the Insulite joint will not center on the bearing shall be forced into position with cut-in headers.

(2c) Fur masonry walls with (1 x 2 in.) (specify) furring strips set 12 or 16 in. O.C. accurately shimmed to a true, level plane. Secure substantially to masonry.

(3) MATERIAL

Interior finish shall be (standard) (Graylite) Insulite Building Board as made by The Insulite Company, Minneapolis, Minn. Boards

shall be ($\frac{1}{2}$ in.) (and) ($\frac{3}{4}$ in.) (and) (1 in.) thick (as designated in paragraph 1), 4 ft. wide x 5, 6, 7, 8, 9, 10 and 12 ft. long as best adapted, free from surface imperfections and edges where not covered by trim or battens free from deleterious dents and abrasions. Exposed surfaces shall be (Burlap) (and) (Fine) finish.

Note: Graylite Board is $\frac{1}{2}$ in. thick only.

(4) CUTTING

All cutting and fitting shall be done in a neat, workmanlike manner. Where joints are not exposed, cut with a fine tooth saw, using a sharp blade with rapid strokes and a minimum of pressure. Where joints are exposed, cut with a sharp linoleum knife against a straight edge.

Note: Sawing if forced leaves a burr, often unsatisfactory for decorating. Cutting with a sharp linoleum knife leaves a smooth, true edge and can be accomplished in three strokes.

(5) BEVELING AND ROUNDING EDGES

Note: For certain schemes of interior decoration, the Insulite may be beveled or rounded on the edges to produce a broad V-groove at each joint. Where battens consisting of strips of Insulite are used to cover the joints, the edges of the battens may be beveled or rounded with excellent decorative effect.

(5a) (Beveling) (and) (rounding) of edges of Insulite (boards) (and) (battens) shall be done in a uniform, workmanlike manner, straight and true to line before they are erected.

(5b) Beveling shall be done with a beveling tool or with sandpaper or emery cloth wrapped around a wood block.

(5c) Rounded edges shall be accomplished by means of a piece of sandpaper held in the hand.

(6) BATTENS

Note: Battens of Insulite, wood or metal may be used to cover the Insulite joints, or the joints may be beveled or rounded as best adapted to the particular decorative scheme.

(6a) Insulite battens shall be (specify thickness and width) with edges neatly (beveled) (rounded) (specify).

(6b) Wood battens shall be (specify thickness and width and design).

(7) METAL JOINT MOULDINGS

Note: There are various sizes and designs of stainless steel, aluminum, and other metal mouldings manufactured for use in covering the joints of insulating wall boards.

INSULITE LARGE TILE AND INSULITE PLANK

(9) WORK INCLUDED

Note: Here list and locate definitely the wall and ceiling areas to be covered. If more than one type of surface is exposed, list and locate separately.

(10) FRAMING, ETC.

Note: Where tile units are applied directly to framing members, framing shall be as specified in paragraph 2, page 7.

(10d) Cover framing with a wood sub-base consisting of No. 1 Common Grade of Douglas Fir, West Coast Hemlock, or equivalent, 4, 6, or 8 in. wide, matched 25/32 in. thick, lumber to form a continuous nailing base.

Note: Use (10d) only where staggered end joints in alternate courses are set midway over the long sides or otherwise so they will not fall on 16 in. centered framing members.

(11) MATERIAL

Interior finish shall be Insulite (Large Tile) (Plank) as made by The Insulite Company, Minneapolis, Minn. Units shall be ($\frac{1}{2}$ in.) (and) ($\frac{3}{4}$ in.) (and) (1 in.) thick (16 x 32 in.) (18 x 32 in.) (24 x 32 in.) (16 x 48 in.) (18 x 48 in.) (24 x 48 in.) (specify plank type and size) (with beveled edges and interlocking joints) delivered to the building site in the original manufacturer's packages. Exposed surface shall be (Burlap) (and) (Fine) finish. (Specify color.)

Metal joint battens shall be as detailed made by (specify name of manufacturer, type of metal and finish).

(8) APPLICATION

(8a) **General**—Insulite shall be applied immediately prior to the erection of interior wood trim. The Insulite boards shall be placed singly around the room and allowed to stand at least 24 hours before erection to allow adjustment to atmospheric conditions. In exceptionally dry weather moisten the Insulite lightly on side facing supports and pile the boards 24 hours before erection.

Note: Insulite, like other materials used in interior construction (such as wood trim), responds to some extent to changes in humidity and temperature; consequently discretion should be exercised in its application.

Apply Insulite with the length parallel with framing members with (Burlap) (and) (Fine) face exposed (as designated in par. 1). All joints shall center over framing members.

(8b) Spacing—

(8b1) **Battened Joints**—Space boards $\frac{1}{8}$ in. apart at edges.

(8b2) **Exposed Joints**—Bring boards to a moderate contact. Do not force into place.

(8c) Nails—

(8c1) For $\frac{1}{2}$ in. thick Insulite, use standard $1\frac{1}{2}$ in. galvanized roofing nails with $\frac{3}{8}$ in. heads where joints are covered with battens or wood trim. Use $1\frac{1}{2}$ in. finishing nails where nailing is exposed, driving nails at an angle of 45° alternating from nail to nail.

(8c2) For ($\frac{3}{4}$ in.) (and) (1 in.) thick Insulite, use 8d common nails where joints are covered with battens or wood trim. Use 2 in. finishing nails where nailing is exposed.

(8d) **Nailing**—First nail Insulite to intermediate framing members and then nail the edges. At all edges space nails 3 in. apart O.C. and approximately $\frac{3}{8}$ in. away from the edge. On intermediate framing members, space nails 6 in. apart O.C.

Where nailing is exposed, drive finishing nails at an angle and set the heads neatly below the Insulite surface. Where nails are covered by battens or wood trim, drive nails until the heads are slightly below the Insulite surface.

(8e) **Battens and Wood Trim**—Apply battens and wood trim (as detailed) over Insulite with nails of sufficient length to pass through the Insulite and penetrate the framing members at least 1 in.

(8f) **Metal Moulding**—Apply metal mouldings as detailed. (Specify any particular method of attachment, such as clips, screws, etc.).

(12) CUTTING

Note: As specified in paragraph 4 above for Insulite Building Board.

(13) APPLICATION

(13a) **General**—Apply units with the beveled edge side out.

(13a1) Units shall be applied at right angles to the framing members. End joints shall center over framing members staggered in successive courses (as detailed).

Note: Use (13a1) where units are applied to framing members; (13a2) where units are applied over solid wood base.

(13a2) Units shall be applied over wood sub-base with jointing of successive courses staggered (in accordance with the detail drawings) (specify).

(13b) **Spacing**—Bring boards to a moderate contact. Do not force into place.

(13c) **Nails**—(Use $1\frac{1}{2}$ in. finishing nails for $\frac{1}{2}$ in.) (Use 2 in. finishing nails for $\frac{3}{4}$ and 1 in. thicknesses.)

(13d) **Nailing**—Nail tile units to each framing member with nails spaced uniformly approximately 3 in. O.C. Drive nails at an angle and set the heads neatly below the surface.

(13e) **Overlays, Wood Trim, Etc.**—Apply (decorative Insulite overlays) (and) (wood trim) over Insulite Tile with nails of sufficient length to pass through the Insulite and penetrate the wood at least 1 in.

INSULITE SMALL TILE

(14) WORK INCLUDED

Note: Here list and locate definitely the wall and ceiling areas to be covered. If more than one type of surface is exposed, list separately and the respective locations or areas covered. For the best results, accurate, detailed elevations of walls and plans of ceilings showing disposition and sizes of units should be included in the drawings and referred to here.

(15) WOOD NAILING BASE AND FURRING STRIPS

(15a) Wood Nailing Base—Note: Where Insulite Small Tile is not applied over plastered surfaces, a wood nailing base as specified in (10d) for Insulite Large Tile may be used.

(15b) Furring Strips—Wood furring strips, 1 x 2 in., shall be applied to the framing members, so disposed as to form a firm nailing base for the tile units. Spacing shall in no case exceed 16 in. O.C.

Note: Use where Insulite Tile is not applied over plastered surfaces or wood nailing base.

(16) MATERIALS

Interior finish shall be Insulite Small Tile as made by The Insulite Company, Minneapolis, Minn. Tile shall be bevel edged on exposed surface ($\frac{1}{2}$ in.) (and) ($\frac{3}{4}$ in.) (and) (1 in.) thick x (6 x 6 in.) (6 x 12 in.) (8 x 8 in.) (8 x 16 in.) (12 x 12 in.) (12 x 24 in.) (24 x 24 in.) (16 x 16 in.) (as indicated on details). Exposed surface shall be (Burlap) (and) (Fine) finish. (Specify color.)

(17) CUTTING

Note: As specified in par. 4, page 8, for Insulite Building Board.

(18) APPLICATION

(18a) General—Insulite Small Tile shall be laid in exact accordance with the detail drawings.

(18b) Spacing—Bring units to a moderate contact. Do not force into place.

(18c) Cement—Cement shall be (specify).

(18d) Nails—Use (4 penny casing or finishing nails for $\frac{1}{2}$ in.) (2 in. finishing nails for $\frac{3}{4}$ and 1 in.)

Note: Use zinc-coated nails where high humidities prevail.

(18e) Cementing and Nailing Over Plaster Base—Apply spots of cement to the back surface near each corner with additional spots approximately 10 in. apart on large tile. Exercise care to prevent cement from appearing on the exposed finished face. Press the tile into position, level and true, and nail tiles in position with one or two nails at each corner and additional nails as required for large tile. Set heads neatly below the Insulite surface.

Note: The above method advocated in the better classes of work.

(18f) Nailing Only Over Plaster Base—Nail tile in position using 5 penny nails with two nails at each corner and additional nails as required for large tile. Drive nails at 45 degree angle and set heads neatly below the Insulite surface. (Use longer nails for $\frac{3}{4}$ and 1 in.)

Note: Use the above method only where the plaster is sound.

(18g) Nailing over Wood Backing (Continuous or Furring Strips)—Nail tile in position using two nails at each corner and additional nails as required for larger tile. Drive nails straight or at a slight angle with heads set below the surface.

(18h) Overlays—Apply decorative overlays by spot cementing and nailing or by nailing only. Use nails of sufficient length driven at an angle, with heads set, to assure adequate penetration of nailing base.



LARGE TILE—Application Specifications, page 8



SMALL TILE—Application Specifications above

INSULITE EXTERIOR FINISH INSULATION

Section . . . 4
MASTER SPECIFICATIONS

Note: Insulite Building Board may be used to advantage in many classes of work as an exposed exterior finish over frame construction.

(1) WORK INCLUDED

Note: Here list and locate the wall surfaces to be covered. If more than one thickness is used or more than one type of surface exposed, list separately.

(2) FRAMING

Studs shall be framed to conform accurately to the design of board spacing or paneling, set 16 in. O.C. Use additional studs and headers where necessary. Provide headers back of all horizontal heavy wood trim. Where necessary, straighten and stay studs back of Insulite joints to provide central bearing under joints.

(3) MATERIAL

Exterior finish shall be (standard) (Graylite) Insulite Building Board as made by The Insulite Company, Minneapolis, Minn. Boards shall be free from surface imperfections ($\frac{1}{2}$ in.) (and) ($\frac{3}{4}$ in.) (and) (1 in.) thick (as designated in paragraph 1), 4 ft. wide x 5, 6, 7, 8, 9, 10, and 12 ft. long as best adapted. Exposed surface shall be (Burlap) (and) (Fine) finish.

Note: Graylite Board is $\frac{1}{2}$ in. thick only.

(4) APPLICATION

(4a) General—Moisten and pile Insulite boards one day before application. Remove boards from the pile just prior to nailing to the framing. Moistening shall be accomplished by sprinkling lightly with a hose or sprinkling can or from a broom dipped into a pail of water.

Apply Insulite with the length parallel with framing members (Burlap) (Fine), face exposed. All joints shall center over framing members.

(4b) Spacing—Space boards $\frac{3}{8}$ in. apart at all edges. At window and door frames bring Insulite in close contact with frame members.

(4c) Nails—

(4c1) Use standard $\frac{3}{8}$ in. head, $1\frac{1}{2}$ in. galvanized roofing nails for $\frac{1}{2}$ in. thick Insulite.

(4c2) Use 8d common nails for ($\frac{3}{4}$ in.) (and) (1 in.) thick Insulite.

(4d) Nailing—First nail Insulite to intermediate framing members and then nail the edges. At all edges space nails 3 in. apart on centers and $\frac{3}{8}$ in. away from the edge. On intermediate framing members, space nails 6 in. apart O.C. Drive nails until the heads are slightly below the Insulite surface.

(4e) Painting—

Note: Painting should be done before battens or wood trim is applied over the Insulite joints. Wherever exposed directly to the weather, the Insulite surface should be sized and painted in accordance with specifications, Section 5, pages 10 and 11.

(4f) Battens and Wood Trim—Apply battens and wood trim (as detailed) over Insulite with nails of sufficient length to pass through the Insulite and penetrate the framing members at least 1 in.

FINISHING INSULITE
STAINING, PAINTING, PAPERING, ETC.Section . . . 5
MASTER SPECIFICATIONS

Note: The decorative possibilities of Insulite have been demonstrated in thousands of installations. It is frequently used as interior finish in its natural state. It may be finished with stains, paints, plastic paints, wall coverings, etc. Insulite is a distinctive product, designed to provide high insulating efficiency with decided structural strength—painting and finishing methods entirely satisfactory for plaster or wood surfaces are not necessarily most suitable for Insulite.

(1) STAINS

Note: Stains may be used where the natural color of the Insulite is to be modified without destroying the surface texture. Glue stains have been found to give the best results. Alcohol stains are not recommended being found to dry too rapidly leaving unavoidable brush marks and streaks. Following is a satisfactory glue stain:

Dissolve $\frac{1}{2}$ lb. of flake or ground glue to the gallon of boiling water. After the glue has been thoroughly dissolved, add dry colors in

amounts to produce the depth of tone and color required. Stir the dry colors in water to form a thin paste before adding to the glue solution.

Apply the glue stain promptly after preparation, preferably while still warm.

(2) SIZING

Note: Insulite, except for the application of stains and water paints and certain types of plastic paint, requires a sizing coat.

Glue Size—Dissolve $1\frac{1}{2}$ to 2 lbs. of chip or flake glue in one quart of boiling water. Then dilute in one gallon of warm water. Brush thoroughly on to the Insulite surface before the size has completely cooled.

(3) OIL OR VARNISH PAINTS

Note: The Fine surface finish of Insulite is recommended for these finishes. The use of reputable, high grade interior paints is advocated to assure the best results. These may be obtained to

produce varying degrees of luster, such as gloss, semi-gloss or eggshell and flat. In two coat work, the second coat may be brush stippled, sponge stippled in one or more contrasting tones, or glazed, all accomplished in the standard manner.

Brushing lacquers, bronzing liquids, and other similar finishing materials may be applied to sized Insulite.

(3a) Sizing—Thoroughly size the Insulite surfaces with (specify glue-size or prepared oil or varnish size, giving brand and manufacturer). After size has completely dried, sand the surface lightly.

Note: See paragraph (2), page 10 for sizing.

(3b) Painting—Over the sizing apply two coats of (specify brand and manufacturer) paint.

Note: Describe further any particular surface finish.

(4) WATER EMULSION PAINTS

Note: If glazed, the Burlap textured surface is advocated, otherwise the Fine surface is recommended. These paints should be applied directly to the unsized Insulite surface. A single coat will give coverage, though two coats are recommended.

(4a) Painting—Apply (one) (two) coats of (specify brand and manufacturer) paint. Paint shall be prepared, mixed, and applied in strict accordance with the manufacturer's directions.

(4b) Glazing—

Note: These paints may also be glazed as are the varnish paints under the following directions:

Add one (1) quart of spar varnish to the gallon of paste before mixing with water. Apply to the Insulite surface and glaze.

Note: Describe further the particular glaze and effect desired.

(5) WATER PAINTS

Note: Either Burlap or Fine surface may be used dependent on effect. Paints of this class consist of water as a vehicle plus a glue or casein binder and pigment. Ordinary calcimines are of this type. They may be applied directly to unsized Insulite.

Painting—Apply one (1) coat of (calcimine) (specify brand and manufacturer of water paint). (Calcimine) (paint) shall be prepared, mixed, and applied in strict accordance with the manufacturer's directions.

(6) STENCILING

Note: Decorative stencils may be used to advantage over stains,

oil, or varnish paints, and water emulsion paints, or directly over the Insulite.

Decorative stencils of design and color selected by the architect shall be applied as follows:

Note: Here list and describe stencils required.

Stencil colors shall be made of pure Japan color paste thinned to the proper consistency with six (6) parts of turpentine, three (3) parts of linseed oil, to one (1) part of Japan Drier.

(7) PLASTIC PAINTS

Note: The Fine surface is recommended. Plastic paints are thick paints which, when applied, can be textured by brush or tools to produce various textures. They are divided into two groups—those prepared by the addition of water to a powder and those having a linseed oil base furnished prepared ready for use.

(7a) Covering Joints—Treat all joints, corners, and re-entrant angles as recommended by the plastic paint manufacturer.

(7b) Applying Plastic Paint—Apply plastic paint (specify brand and manufacturer) to all Insulite surfaces. Paint shall be prepared, mixed, and applied in strict accordance with the manufacturer's directions, textured, painted or glazed, tinted as follows:

Note: Here describe the color tone and surface texture. If more than one type is required, describe, list, and locate each separately.

(8) WALL COVERINGS

Note: Use the Fine surface Insulite for applications of wall coverings. Papers with bold patterns are recommended. In addition to wall papers, canvas, fabrics such as Sanitas, leathers, and even thin plywoods and thin metal sheets may be applied. It must be remembered that wood and fiber insulating boards are subject to some slight expansion and contraction, and consequently there is the possibility of a wall covering cracking at the joint. However, the following specifications are the most satisfactory of those which are now in use.

(8a) Covering Joints—Before applying plastic paint, treat all joints, corners, and re-entrant angles as recommended by the manufacturer.

(8b) Sizing—Thoroughly size the Insulite surfaces with glue-size. After the size has completely dried, sand the surface lightly.

(8c) Wall Covering—

Note: Here specify the particular wall covering. Wall paper may be applied over a lining paper if desired. If special requirements must be met, follow the manufacturer's standard recommended method of procedure.

Section . . . 6

MASTER SPECIFICATIONS

INSULITE SOUND INSULATION PARTITIONS AND FLOORS



Insulite between sub and finished floors for sound deadening

Note: Insulite Lok-Joint Lath and plaster partitions have been found by test to be more resistant to the transmission of sound than ordinary plastered partitions, but for still more satisfactory results the constructions described under this heading should be used. Where sound insulation is required, details to fit the particular construction should be given and specifications formulated along the lines of those suggested in Section 1 to 5 inclusive to fit the particular installation.

MATERIAL

The material adapted to sound insulation of partitions and floors is Insulite Building Board or Insulite Lok-Joint Lath.

PARTITIONS

For sound insulating partitions Insulite may be used in any one of three ways. One method is to use staggered stud partition with plaster applied directly to the Insulite Lok-Joint Lath. The studs should be 16 in. on center and should be nailed to a 2 x 6 sill. The usual precautions in regard to straightness of studding should be observed.

For the best sound insulating partition between rooms the following construction should be used. 2 x 2 in. studding or 2 x 4 in. stud-

ding set flat should be 12 or 16 inches on center, nailed to a 2 x 6 sill and plate. Insulite Lok-Joint Lath should be nailed to these in accordance with specifications, Section 2, and the lath plastered. A loose layer of Insulite should be placed between the studs. The vertical edge of the loose layer should lap for a distance of 3 or 4 inches. This is not a load-bearing partition.

For tile partitions Insulite should be used between a double tile partition.

CONCRETE STRUCTURAL FLOORS

When a wood floor is to be used, the Insulite is nailed to sleepers 48 in. on center, the space between the sleepers being filled with cinder concrete. The finish floor should be nailed to 1 x 3 furring strips placed across the sleepers 16 in. on center and nailed through the Insulite to the sleepers.

WOOD JOIST FLOORS

Insulite may be laid directly over the rough flooring and the finished flooring nailed to the rough flooring through the Insulite, though a floating floor is recommended in preference. In the floating floor construction 1 x 3 furring strips should be nailed through the Insulite to the sub-floor spaced 16 in. O.C. nailed only at 48 in. intervals—the finished flooring is then nailed to the furring strips in the usual manner.

For superior sound insulation of floors having wood joists, the first layer of Insulite is placed on top of the sub-floor with furring strips over the Insulite and the finish floor nailed to these strips as described above. The ceiling should be supported by independent ceiling joists. These ceiling joists should be bridged to prevent twisting and should be spaced midway between the floor joists. A layer of Insulite Lok-Joint Lath should be nailed to the ceiling joists in accordance with Section 2, and the lath plastered.

ROOF INSULATION SPECIFICATIONS

Introduction—A Guide to Good Practice

Section . . . 7

MASTER SPECIFICATIONS

GENERAL

Roof insulation is customarily furnished and applied by the roofing contractor. Too often his work has to be executed against time and frequently under unfavorable weather conditions. There are, however, certain provisions following which, if clearly set forth in the specifications, enable him to do better and more rapid work and at the same time assure a longer lived roof to the owner.

Vapor cut-offs, seal courses and water cut-offs are approved for standard practice by the United Roofing Contractors' Association.

VAPOR CUT-OFF

While several types are used, the vapor cut-off consists essentially of a multiple layer of roofing felts or of a particular kind of "rubber" roofing nailed directly over the board deck and mopped over with hot bitumen to receive the insulation. This vapor cut-off, together with the finished roof covering applied over the insulation, sandwiches the insulation between two water and vapor-proof layers.

SEAL COURSE FOR CONCRETE AND SIMILAR DECKS

Buildings with concrete and similar decks present two major problems to the roofer. He is often forced to lay the roofing, including the insulation, before other trades have left the roof in order that plastering and other operations within the building may be completed on scheduled time. Again, he may be called upon to work during inclement weather. Damage under these conditions which may be done to both roofing and insulation may later cause the owner more or less costly replacement. To provide against such contingencies, it is recommended that the specifications provide for the application of a standard seal course which acts as a temporary waterproof covering for the entire roof area.

WATER CUT-OFFS

Provision against damage by sudden showers, over-night and week-end stopping of the insulation and roofing and assurance against spread of leaks from the sometimes seemingly inevitable defects or abuse can be made with properly installed water cut-offs through the body of the insulation. They are standard in good construction.

Their importance is such that it is suggested that the architect indicate with faint lines on the roof plan their desired locations. This assists the roofing contractor in the planning of the roofing operations divided into isolated areas to be completed within certain working hours and serves as a permanent record of their location.

WOOD NAILING STRIPS

Insulation is not a nailing base. Therefore, it is necessary that

wood nailing strips be provided on all roof decks to form a permanent, rigid nailing base for the secure attachment of all sheet metal flashing. These strips should be the full thickness of the insulation and should be at least 1 in. wider than the apron of the flashing.

Provide in the specifications under the carpentry division that the general contractor shall furnish and install these nailing strips.

RECOMMENDED NUMBER OF LAYERS

Insulite Roof Insulation is made in various laminated (stapled) thicknesses or plies up to 2 in. thick. It is made with both offset (1 in. shiplapped) and square edge. Where square edged units are used, for the best results the insulation should be laid in two (2) layers, the second breaking joints with the first layer.

BITUMENS AND FELTS

Where coal tar pitch is used, all felts should be impregnated with the same material. Where asphalt pitch is used, use asphalt impregnated felts.

PREFACE TO SPECIFICATIONS

Read "Preface to Specifications" given on page 5 in explanation of form, notes, etc.



Insulite Roof Insulation laid with "Water Cut-Offs"

Section . . . 7A

MASTER SPECIFICATIONS

INSULITE ROOF INSULATION
Over Wood Roof Decks Under Built-Up Roofing

(1) WORK INCLUDED

Note: List and locate the roof areas to be insulated. If more than one thickness of insulation is required on various roof areas, list and locate each separately.

(2) INSULATION MATERIAL

Insulation shall be (homogeneous) (two ply laminated) (stitched) (specify) thick (offset) (square) edge Insulite (Asphalted) Roof Insulation as made by The Insulite Company, Minneapolis, Minn., laid in (one) (two) layer(s). Boards shall be 24 x 48. All Insulite shall be kept dry before, during and after application.

(3) WOOD NAILING STRIPS

Note: To provide adequate attachment for miscellaneous sheet metal flashings, such as leader outlets, soil and vent flashings, metal base flashings, eave aprons, gravel stops, etc.

The General Contractor will provide wood nailing strips to form a nailing base under all sheet metal flashing aprons and flanges of every nature. Strips shall be the full thickness of the insulation and at least 1 in. wider than the apron rigidly secured to the roof construction with nails, lag bolts, expansion bolts, or other means of attachment as best adapted to the particular construction. This contractor shall check all nailing strips and notify the architect in writing of any defects for correction before proceeding with the laying of insulation and roofing.

(4) ROOF DECK

The surface of the roof deck shall be broomed clean, free from dirt, loose material, and thoroughly dry. All loose or springy boards shall be properly nailed before insulation is laid.

(5) BUILDING PAPER

Note: Use this clause only in case the insulation is laid in one (1) layer.

The entire roof area shall be covered with two (2) plies (lapped half) rosin sized building paper or 6 lb. coated felt. Nail sufficiently to hold in place until the insulation is laid over it.

Note: Include (5) for insulation against heat loss only. Omit where high humidities are maintained.

(6) VAPOR CUT-OFF

Over the wood roof deck lay two (2) plies (lapped half) of light weight (34 lbs. per square) asphalt prepared roofing having one side coated. Lay coated side down. Nail the back edge of each sheet with tin-capped, galvanized, barbed roofing nails spaced 12 in. O.C. All laps shall be mopped back 12 in. with hot asphalt. Do not mop over this membrane until just prior to the laying of insulation.

Note: Include (6) only where high humidities are maintained.

(7) APPLICATION OF INSULATION

(7a) General—Only as much Insulite shall be laid over the roof area as can be covered by the finished roofing in any one day.

Lay the Insulite in (one) (two) layer(s) over the entire roof area. Adjoining edges of the boards shall be brought to a moderate contact but shall not be forced into place. Where the roof meets vertical surfaces, such as parapets, penthouses, etc., the boards shall be cut in a neat, workmanlike manner to insure proper joining without forcing. Boards shall be laid in parallel courses with end joints in each course breaking with those of adjoining courses.

(7b) Mopping the Vapor Cut-Off—Mop the exposed vapor cut-off felt liberally with hot (coal tar pitch) (asphalt). Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

Note: Include (7b) only where high humidities are maintained.

(7c) Two Layer Insulation

(7c1) Where insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Nailing of two (2) layer insulation shall be through the second or top layer only. (Do not nail the first layer.)

Note: Include (7c1) for insulation against heat loss only. Omit where high humidities are maintained.

(7c2) Where insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot (coal tar pitch) (asphalt). Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

Embed each board of the second layer firmly in the bituminous mopping.

Note: Include (7c2) only where high humidities are maintained.

(7d) Water Cut-Offs—

Note: Advocated to prevent the spread of water beyond predetermined isolated areas in the event of leaks due to damage to the roofing or defective flashings, parapet walls, copings, etc.

The insulation, whether laid in one (1) or two (2) layers, shall be cut to the line designated for the water cut-off.

Water cut-offs shall consist of strips of (coal tar pitch) (asphalt) saturated roofing felt 8 to 10 in. wide stuck in bitumen to the roof, carried over the edge of the insulation, and turned over and stuck in bitumen to the top surface of the insulation.

They shall be located approximately 24 in. from and parallel to all vertical walls, such as parapets, penthouses, skylight curbs, etc., and around all leader heads, soil pipes, vents, ventilators, etc. The body or field of the roof shall be divided into rectangular areas approximately 30 ft. on a side, each area isolated with a water cut-off. Insert a water cut-off surrounding each day's work if the stop is not made at the designated water cut-off.

At least one (1) ply of the finished roofing shall be mopped to the water cut-off each night.



Insulite Roof Insulation over Wood Roof Deck

(7e) Nails—Nails shall be of sufficient length to pass through the insulation and penetrate the wood roof deck at least 1 in.

Note: Include (7e) for insulation against heat loss only. Omit where high humidities are maintained.

(7d) Nailing—Space nails 12 in. apart O.C. Each board shall be secured in place by nailing along each edge and staggered along the longitudinal center line.

Note: Include (7f) for insulation against heat loss only. Omit where high humidities are maintained.

INSULITE ROOF INSULATION Over Roof Decks of Monolithic Concrete or Gypsum or Roof Decks of Unit Tile Construction Under Built-up Roofing or Promenade Tile

Section . . . 7B

MASTER SPECIFICATIONS

(1) WORK INCLUDED

Note: Same as Master Specification 7A, page 13.

(2) INSULATION MATERIAL

Note: Same as Master Specification 7A, page 13.

(3) WOOD NAILING STRIPS

Note: Same as Master Specification 7A, page 13.

Note: Omit this clause if finished roofing is of Promenade Tile.

(4) ROOF DECK

(4a) General—The surface of the roof deck shall be reasonably smooth without depressions, broomed clean free from dirt and loose material and thoroughly dry.

(4b) Unit Tile Construction—The joints of all tiles shall be properly pointed up.

Note: Include (4b) where deck is of cement, gypsum, book, or similar tile construction.

(4c) Under Promenade Tile Roofing—

Note: Slope for proper drainage may be provided in either of the two following methods: The first is preferable.

(4c1) The roof slab shall be formed flat and the drainage slopes built up over the Insulite Roof Insulation with the finished promenade tile roofing and its mortar bed.

(4c2) The roof slab shall be formed graded to all outlets with cement mortar fill before the seal course and the Insulate Roof Insulation is laid.

(5) SEAL COURSE

Note: Recommended on all insulated roof decks, other than wood, to afford protection from rain, snow and ice that the insulation and finished roofing may be applied under favorable weather conditions and only after all other trades have left the roof.

(5a) Priming the Deck—Prime the deck with asphalt roofing primer.

Note: Include priming if asphalt mopping and asphalt felt are used for seal course. If coal tar pitch and felt are used, no primer is necessary.

(5b) Mopping the Deck—(Mop the entire roof area) (Spot or strip mop the individual tiles or units) with a coat of hot (coal tar pitch) (asphalt).

Note: If the deck is monolithic construction (concrete, poured gypsum), the mopping shall be continuous. If the deck is of precast units (book tile, precast gypsum, concrete), spot or strip mop the individual units.

(5c) Laying the Seal Course—Over the mopping while hot, lay one (1) layer of 14 lb. (coal tar pitch) (asphalt) saturated roofing felt with 2 in. laps. Turn the felt up 4 in. against all walls and vertical surfaces and stick with pitch and provide temporary thimbles at all leader heads, etc., to the end that the roof will be reasonably watertight against rain and melting snow. Do not mop over this membrane until just prior to the laying of insulation.

(8) APPLICATION OF ROOFING

The exposed surface of the Insulite Roof Insulation shall receive a poured coat of hot (coal tar pitch) (asphalt) squeegeed or broomed to about $\frac{1}{16}$ in. thickness. Into this poured coat, while hot, the roofing felts shall be embedded.

Note: The above in lieu of the ordinary mopping is advocated. Roofing shall be applied in accordance with the manufacturer's specifications as selected by the architect.

(6) APPLICATION OF INSULATION

(6a) Mopping the Seal Course—Mop the exposed seal course felt liberally with hot (coal tar pitch) (asphalt). Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

(6b) General—

Note: Same as (7a) General, Master Specification 7A, page 13.

(6c) Two Layer Insulation—Where insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot (coal tar pitch) (asphalt). Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

Embed each board of the second layer firmly in the bituminous mopping.

(6d) Water Cut-Offs—

Note: Same as (7d) Water Cut-Offs, Master Specification 7A, page 13.

(7) APPLICATION OF ROOFING

Note: Same as Master Specification 7A above.



Insulite Roof Insulation over Concrete Roof Deck

Section . . . 7C**MASTER SPECIFICATIONS****INSULITE ROOF INSULATION
Over Steel Roof Decks Under Built-up Roofing****(1) WORK INCLUDED**

Note: Same as Master Specification 7A, page 13.

(2) INSULATION MATERIAL

Note: Same as Master Specification 7A, page 13.

(3) WOOD NAILING STRIPS

Note: Same as Master Specification 7A, page 13.

(4) ROOF DECK

The steel deck shall be securely anchored to the roof purlins and all joints shall be made rigid.

(5) SEAL COURSE

Note: Include this seal course if the rooms beneath the roof carry high manufactured or incidental humidities. Do not use coal tar pitch mopping on steel decks.

(5a) Mopping the Deck—Mop the entire roof area with a coat of hot asphalt.

(5b) Laying the Seal Course—Over the mopping, while hot, lay one (1) layer of 14 lb. asphalt saturated roofing felt with 2 in. laps. Turn the felt up 4 in. against all walls and vertical surfaces and stick with pitch and provide temporary thimbles at all leader heads, etc. to the end that the roof will be reasonably watertight against rain and melting snow. Do not mop over this membrane until just prior to the laying of insulation.

(6) APPLICATION OF INSULATION

(6a) Mopping the (Seal Course) (Steel Deck)—Mop the exposed (seal course felt) (steel deck) with hot asphalt. Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

Note: Do not use coal tar pitch mopping on steel decks.

(6b) General—

Note: Same as (7a) General, Master Specification 7A, page 13.

(6c) Two Layer Insulation—Where insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot asphalt. Only sufficient area to provide complete embedment of each Insulite board shall be mopped at a time.

Embed each board of the second layer firmly in the bituminous mopping.

(6d) For Steep Decks—In addition to the mopping, each Insulite board shall be secured to the steel deck with three (3) bolts along the top.

(6e) Water Cut-Offs—

Note: Same as (7d) Water Cut-Offs, Master Specification 7A, page 13.

(7) APPLICATION OF ROOFING

Note: Same as Master Specification 7A, page 14.



Insulite Roof Insulation over Steel Roof Deck



Cold Storage Insulation—See page 16

INSULITE COLD STORAGE INSULATION

Section . . . 8
MASTER SPECIFICATIONS

Note: For physical characteristics, see page 2. For description, dimensions, etc., see page 3.

Note: The maintenance of high thermal insulating efficiency in all types of cold storage construction is entirely dependent on quality workmanship and strict adherence to specifications.

(1) WORK INCLUDED

Note: Here list and locate definitely the floor, wall, and ceiling areas to be insulated. If more than one thickness is used, list separately and the respective locations or areas.

(2) PREPARATION OF SURFACES

All surfaces to be insulated shall be clean, dry, smooth, and free from grease or paint. Level rough surfaces with waterproofed Portland cement plaster or asphalt mastic. Allow Portland cement plaster to dry thoroughly before applying insulation.

(3) MATERIAL

Insulation shall be Insulite (*Sealdslab*) (*Cold Storage*) Insulation as made by The Insulite Company, Minneapolis, Minn. Units shall be (*specify*) thick (*as designated in paragraph 1*) x 6, 9, 12, 18, 24 in. x 36 in.; 12, 18, 24 in. x 18 in.; 24 x 24 in.; 12, 24 in. x 48 in. as best adapted to the particular area to be insulated.

(4) CUTTING

All cutting and fitting shall be done in a neat, workmanlike manner. Cutting shall be done with a fine tooth sharp saw using rapid strokes and a minimum of pressure.

(5) APPLICATION

(5a) Dipping—All Insulite Cold Storage Insulation units shall, immediately prior to their application, be dipped in hot or emulsified asphalt.

Note: Advocated irrespective of added coats of asphalt applied after units are erected. Successive coatings of waterproofing are much more effective barriers to infiltration of air and moisture than thick single coatings for the reason that air pockets and bubbles occurring in one coat are sealed up by the next.

(5b) Floors—Concrete—Cover the concrete surface with a heavy coating of hot or emulsified asphalt in which immediately firmly embed the dipped insulation units. Only sufficient areas of sub-floor shall be coated at a time as can immediately be covered with the insulation. Successive layers of insulation shall each be given a heavy surfacing of asphalt with all joints covered. Units shall be laid in parallel rows butted tight with end joints in successive rows staggered. Break joints in successive courses over those previously laid.

Note: Following the top covering of asphalt may be laid a reinforced concrete wearing floor either integrally or surface waterproofed. Finished floor should be at least 2 in. thick.

(5c) Floors—Wood—Floors shall be free from loose boards, large cracks or knot holes.

Over the wood flooring lay one (1) thickness of asphalt saturated felt, lapping each sheet seventeen inches over the preceding one and nail securely in place.

Cover the felt with a heavy coating of hot or emulsified asphalt in which immediately firmly embed the dipped insulation units.

Note: Continue specification as given in (5b) above.

(5d) Structural Masonry Walls—Cover the masonry wall surface with a heavy coating of hot or emulsified asphalt against which immediately firmly embed the dipped insulation units.

Only sufficient areas of wall shall be coated at a time as can immediately be covered with the insulation. Successive layers of insulation shall each be given a heavy surfacing of asphalt. The final coat shall be a thick asphalt mastic troweled on in accordance with the manufacturer's specifications. Units shall be laid in parallel courses butted tight with end joints in successive courses staggered. Break joints in successive layers over those previously laid.

(5e) Ceilings—Existing Concrete Structures

Kiln-dried preservative-treated straight wood strips the same thickness as the insulation and spaced apart accurately 18 or 24 in. to take the insulation unit shall be secured to the ceiling with expansion screws set in holes drilled into the concrete. Coat the ceiling and wood strips with a heavy coat of hot or emulsified asphalt. Only sufficient area of ceiling shall be coated at a time as can immediately be covered with the insulation. Set the first thickness of insulation units against the concrete between the wood strips firmly embedded in the asphalt coat and butted tight and in addition toenail the insulation units to the wood strips. Successive layers of insulation shall each be given a heavy surfacing of asphalt and nailed to the wood strips.

The final coat shall be a thick asphalt mastic troweled on in accordance with the manufacturer's specifications. Successive layers of insulation shall be laid over the first layer breaking joints, each unit substantially secured to the preceding layer with special galvanized wire nails of proper length driven at an angle.

(5f) Ceiling—New Concrete Structures—Provide beveled strips of kiln-dried preservative-treated lumber set 16 in. O.C. on the concrete forms to form a secure nailing base for the second series of wood strips.

Note: Specify same as in (5e) except that wood strips shall be securely nailed to beveled strips above specified instead of with expansion screws set in the concrete.



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